Parker Poe

J. Ashley Cooper
Partner
Telephone: 843.727.2674
Direct Fax: 843.727.2680
ashleycooper@parkerpoe.com

Atlanta, GA
Charleston, SC
Charlotte, NC
Columbia, SC
Greenville, SC
Raleigh, NC
Spartanburg, SC
Washington, DC

June 1, 2020

Via Electronic Filing

Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
Post Office Drawer 11649
Columbia, SC 29211

Re: South Carolina Energy Freedom Act (H.3659) Proceeding to Establish Dominion Energy South Carolina Inc.'s Standard Offer, Avoided Cost Methodologies, Form Contract Power Purchase Agreements, Commitment to Sell Forms, and Any Other Terms or Conditions Necessary (Includes Small Power Producers as Defined in 16 United States Code 796, as Amended) – S.C. Code Ann. Section 58-41-20(A); Docket No. 2019-184-E

Dear Ms. Boyd:

In accordance with Order No. 2020-244—issued by the Public Service Commission of South Carolina (the "Commission") in the above-referenced docket—Dominion Energy South Carolina, Inc. ("DESC") hereby files for approval the enclosed mitigation protocols (the "Protocols") that may reduce the Variable Integration Charge (the "VIC") and Embedded Integration Charge (the "EIC," and together with the VIC, the "Integration Charges")[1] incurred by certain solar projects on the DESC system.

Background

As an initial matter, the Protocols are optional and will be available to solar qualifying facilities (each, a "QF")—as defined by Public Utility Regulatory Policy Act of 1978, 16 U.S.C. §§ 2601, et seq. ("PURPA")—that wish to mitigate Integration Charges under DESC's form power purchase agreement ("PPA") or standard offer ("Standard Offer," and together with the PPA, "Solar Contracts"). For Solar Contracts with an effective date on or prior to the date the

[1] The difference between the VIC and EIC is largely administrative, as both attempt to recover similar costs. The EIC is currently factored into DESC's avoided cost methodology, while the VIC is meant to collect such costs under certain existing power purchase agreements with rates that do not account for such costs.

Commission approves the Protocols, the Protocols will be incorporated—upon request—via an amendment.[2] The Protocols will be an attachment to Solar Contracts executed thereafter.

As DESC has proven in past proceedings before the Commission, DESC's customers incur additional costs as a result of variable, uncontrolled solar QFs on the DESC system. Indeed, in Order No. 2019-847, the Commission held that the imposition of Integration Charges in an interim amount of $2.29/MWh was "just and reasonable to customers, consistent with PURPA and FERC regulations and orders, non-discriminatory to QFs, and serve[s] to reduce the risk placed on the using and consuming public." Order No. 2019-847 at 56, issued on December 9, 2019, in Docket No. 2019-184-E. Although the initial value of $2.29/MWh was reduced by the Commission in Order No. 2020-244, the Commission held that the imposition of Integration Charges at such initial value was "supported by the evidence of record." Order No. 2020-244 at 4, issued on March 24, 2020, in Docket No. 2019-184-E.

These variable, uncontrolled generators create added reliability concerns and issues on the DESC system, which require DESC to maintain additional operating reserves to ensure reliability and guard against the possibility of an unacceptable shortfall in such reserves. For example, stand-alone solar QFs can have frequent, unplanned drops in generation that exceed 75% of their nameplate ratings. Typically, these unplanned drops are highly correlated to large drops in generation across other solar QFs, which has reliability consequences on the DESC system. The additional reserves ensure that DESC is prepared for these large, unplanned drops in generation such that DESC's overall ability to reliably serve customers and balance the DESC system is not adversely affected. However, maintaining these reserves necessarily means that DESC incurs costs. To prevent DESC's customers from being responsible for those costs, DESC recoups them from the generators necessitating such costs under Solar Contracts via Integration Charges.

This means that any solar QF (each, a "Seller") desiring to reduce or eliminate Integration Charges owed to DESC must first reduce or eliminate the need for DESC to carry additional operating reserves as a result of such Seller's generation. To do this, such Seller must reduce the magnitude of these unplanned drops in generation and provide a "smoother" generation profile. As such, the Protocols, as well any future mitigation measures, will provide a reduction in Integration Charges that corresponds to the degree Sellers are able to mitigate the magnitude of these unplanned drops in generation.[3]

Solar Site Variability Metric

The Solar Site Variability Metric ("SSVM") measures the degree to which a Seller reduces its variability under the Protocols and will be calculated utilizing data collected by Seller from a revenue quality meter (the "Integration Meter"). The Integration Meter must be installed at Seller's expense and be capable of recording 5-minute energy production data for Seller's generator.[4] Seller will collect this data and input the same into a spreadsheet (the "SSVM Spreadsheet")

[2] The specific defined terms used in the Protocols may be modified to conform to the defined terms in certain existing Solar Contracts. However, the form and substance of the Protocols will remain the same in all material respects.

[3] DESC is also analyzing other mitigation options, including, but not limited to, the addition and deployment of DESC-owned assets to reduce variability on the DESC system. Based on information currently available, deployment of DESC-owned assets offers a meaningful way to fulfill the policy objectives of Act 62, while also providing mitigation for Integration Charges and maintaining reliability.

[4] As outlined in DESC Witness Hanzlik's Rebuttal Testimony in Docket No. 2019-184-E, DESC must comply in real-time with NERC BAL standards. The five-minute interval provides a reasonable timing interval for Sellers without overly interfering with DESC's real-time obligations.

provided by DESC. Although Seller must input data to allow calculation of the SSVM for each applicable period of the day in the SSVM Spreadsheet, as specified below, only certain periods factor into the SSVM calculation. For example, Sellers will not be penalized for losses in generation occurring during sunset (i.e., when drops in production are planned). Likewise, data from overnight hours will not be used. A Seller will also not be penalized for drops occurring when the Seller was generating at less than 10% nameplate capacity at the beginning of a measurement period. These factors combine to ensure that Sellers are not penalized for expected evening drops and drops that do not cause unreasonable reliability challenges for DESC, thus, identifying only the events that contribute directly to costs incurred to maintain additional operating reserves.

The SSVM Spreadsheet will calculate the SSVM as follows:

- The change in energy production over applicable daylight hours for each 5-minute period (for example, change at 1:15 is the energy production at 12:15, less the energy production at 1:15, while the change at 1:20 is the energy production at 12:20, less the energy production at 1:20), divided by the actual production levels of the Seller at the beginning of the hour period.

- If the quotient is negative, the SSVM is 0 for such period.

For example, if Seller generates 60 MW at 12:05 PM, and 48 MW at 1:05 PM, the SSVM for that hour is 20% ((60 MW – 48 MW) / 60 MW). If Seller's output increased over that period, the SSVM will be zero for that period. The maximum observed SSVM shall be deemed the SSVM utilized in determining that month's reduction, if any, in Integration Charges.

If the SSVM for the month is:

- Less than or equal to 25%, Seller shall pay no Integration Charges for such month.

- Greater than 25% and less than or equal to 45%, Seller shall pay 50% of applicable Integration Charges for such month.

- Greater than 45%, Seller shall receive no reduction in applicable Integration Charges for such month.

These percentages approximate the corresponding reduction in DESC's need to hold additional operating reserves for these variable, uncontrolled generators.

Administration of the Protocols

The Protocols require Sellers that "opt-in" to the Protocols to submit the completed SSVM Spreadsheet to DESC within two business days of month's end in order for DESC to determine the SSVM for the prior month. The SSVM Spreadsheet will not only contain the 5-minute data Seller collects from the Integration Meter, but will also contain the day-ahead energy forecasts Sellers are required to provide to DESC under the Solar Contracts. These forecasts are important for DESC's system planning, operation of its generators, and planning for its short-term needs. If a Seller does not deliver the SSVM Spreadsheet to DESC within the required timeframe, Seller will receive no reduction in Integration Charges for the prior month. Calculation and application of the SSVM under the Protocols will begin on the first day of the first calendar month after which all requirements for participation in the Protocols have been satisfied. Any Seller that is required to

deliver the SSVM Spreadsheet, but fails to do so for two consecutive months, shall be ineligible to utilize the Protocols going forward.

If a Seller does achieve reduction or elimination of the Integration Charges during an applicable month, such amount will be reflected in the invoice for such month under the Solar Contract. Additionally, by incorporating the Protocols into the Solar Contracts, the relationship between the parties will otherwise be governed by the Commission-accepted language therein.[5] Indeed, the form PPA and Standard Offer were recently approved by the Commission in DESC's last avoided cost proceeding in Docket No. 2019-184-E. As such, DESC respectfully requests that DESC not be required to re-file the form PPA and Standard Offer as a result of submitting the Protocols given that the Protocols will simply act as an attachment to the currently effective versions of these form contracts. To be clear, DESC will incorporate the Protocols into the next form contracts it files for Commission approval, but believes such a filing is unnecessary at this time.

In short, the Protocols, in accordance with Commission Order No. 2020-244, permit existing and future solar QFs to reduce or eliminate Integration Charges by reducing the variability of their generation. As such, DESC respectfully requests that the Commission approve the Protocols.

Thank you for your time and consideration of these matters.

Sincerely,

J. Ashley Cooper

JAC:hmp
cc: (Via Electronic Mail)
All parties of record in Docket No. 2019-184-E

[5] For example, the Solar Contracts contain provisions that would make the Seller whole if DESC later found the Seller should have been afforded a reduction in Integration Charges that was not reflected on an invoice. Likewise, DESC's customers will be protected because DESC will be able to obtain certain supporting documentation to ensure the Integration Meter is accurately reporting the data utilized in the SSVM calculation.

ATTACHMENT [__]

MITIGATION PROTOCOLS

- Seller shall install, at Seller's expense, a revenue quality meter (the "Integration Meter") capable of recording 5-minute energy production data for the Facility's AC production (the "Integration Meter Data"). The Integration Meter shall be deemed a "Seller's Meter."

- Each month, Seller shall enter the Integration Meter Data and day-ahead energy forecasts (in accordance with Section 6.1(b)) into the spreadsheet (the "SSVM Spreadsheet") provided by Buyer.

- The SSVM Spreadsheet will calculate the Solar Site Variability Metric ("SSVM") as follows:

    - All Integration Data is entered into the SSVM Spreadsheet, but only periods in the relevant daylight hours impact the SSVM.

    - The change in energy production over applicable daylight hours for each 5-minute period (for example, change at 1:15 is the energy production at 12:15, less the energy production at 1:15, while the change at 1:20 is the energy production at 12:20, less the energy production at 1:20), divided by the actual production levels of the Facility at the beginning of the hour period.

    - If the quotient is negative, the SSVM is 0 for such period.

- The maximum SSVM observed over the calendar month shall be deemed the SSVM for that month's integration charge calculation.

- If the SSVM for the month is:

    - Less than or equal to 25%, Seller shall pay no integration charges for such month.

    - Greater than 25% and less than or equal to 45%, Seller shall pay 50% of applicable integration charges for such month.

    - Greater than 45%, Seller shall receive no reduction in applicable integration charges for such month.

- Within two (2) Business Days of month end, Seller shall provide to Buyer the prior month's SSVM, the completed SSVM Spreadsheet, and all other information reasonably requested by Buyer to support Seller's calculation of the SSVM.

- Should Seller fail to deliver the attestation within the required time, it shall be charged the full amount of applicable integration charges for the billing month.

- In the event that Buyer's Meter(s) provides energy production data during a period that the Integration Meter does not, Buyer's Meter(s) shall be determinative.

- If the Integration Meter and Buyer's Meter(s) fail to provide energy production data for a period longer than 24 consecutive hours, no reduction shall be applied for the applicable billing month.

- Calculation and application of the SSVM will begin on the first day of the first calendar month (the "Mitigation Start Date") after which all requirements for participation in these Mitigation Protocols have been satisfied.

- If Seller does not provide the SSVM Spreadsheet for two consecutive months after the Mitigation Start Date, Seller shall pay the full amount of applicable Integration Charges, without reduction, for the remainder of the Term.